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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/809,532

03/26/2004

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SON-2960

7528

23353 7590 07/09/2008
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EXAMINER

CUTLER, ALBERT H

ART UNIT

PAPER NUMBER

2622

MAIL DATE

DELIVERY MODE

07/09/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/809,532	Applicant(s) YAEGASHI, AKIRA	
	Examiner ALBERT H. CUTLER	Art Unit 2622	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4,9,12 and 14-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4,9,12 and 14-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This office action is responsive to communication filed on April 15, 2008.

Response to Arguments

2. Applicant's arguments filed April 15, 2008 have been fully considered but they are not persuasive.
3. Consider claims 9, 12 and 14-17, Applicant argues that in Hamilton, the decryption key is never stored in a removable recording medium, and that the decryption key is never released to any entity outside of the authentication center. Applicant argues that Hamilton provides a method for transferring an encryption key and serial number, not a decryption key.
4. The Examiner respectfully disagrees. Hamilton teaches that a particular key (20) is assigned to a camera (paragraph 0079, step 62, figure 3). Hamilton teaches that both a serial number (22) of the camera and the key (20) are also transmitted to an authorization center (14), and that such a transmission can be via traditional "hard copy methods" (i.e. via a removable recording medium outside the authorization center, see the last seven lines of paragraph 0079). The authorization center decrypts the encrypted images (paragraph 0057), and said decryption is not possible without the key (20, paragraphs 0051 and 0071). Therefore, the key (20) constitutes both an encryption key and a decryption key. Hamilton teaches that the key (20) can be generated "for the authorization center", paragraph 0068.
5. Consider claims 1-4 and 22-24, Applicant argues that, with regards to Read, there is no communication between the End User (110) and the Imaging devices

directly. Applicant specifically points to claim 1, which recites that the “viewer apparatus... communicating with the image pickup device” and “the image transmitted via said network from said image pickup apparatus to said viewing apparatus”.

Applicant then states that neither Hamilton nor Read discloses this direct communication.

6. The Examiner respectfully disagrees. The Examiner does not agree that claim 1, as written, teaches that the image pickup device and viewing apparatus communicate directly without routing images through an authentication server, as contended by Applicant. Claim 1 recites that the viewing apparatus communicates with the image pickup device, and views images transmitted via a network from the image pickup device to the viewing apparatus. In paragraphs 0023-0024, Read teaches that a viewing apparatus (i.e. end user device, 110, and server, 108) communicates with the image pickup device (“connects to the Internet (102) in order to receive encrypted image data and other signals from the video cameras (104), by transfer via the personal computer (106) and the Internet (102)”), and views images transmitted via a network (i.e. Internet, 102) from the image pickup device (104) to the viewing apparatus (“In effect, the end user devices (110) are each capable of accessing select ones of the image data captured by the video cameras (104)”. End user devices comprise “display elements” (i.e. viewing devices), paragraph 0021.). Claim 1 simply recites that images are transmitted from an image pickup apparatus to a viewing apparatus, and does not place any limitations on the path or length of transmission, only stating that the transmission is via a network.

7. The rejection of claims 2-4 and 22-24 is maintained under the same rationale stated above.

8. Consider claims 18-21, Applicant argues once again that none of the references allow both the use of an authentication server to begin communication and "direct communication" between the imaging device and the viewer.

9. The Examiner once again disagrees that the claims, as currently written, require a "direct communication" between the imaging device and the viewer. Claim 18 simply recites that images are transmitted from an image pickup apparatus to a viewing apparatus, and does not place any limitations on the path or length of transmission.

10. Applicant argues that the combination of Park, Read and Oishi fails to teach, "authenticating the user and image pickup apparatus in response to the requesting step; connecting the image pickup apparatus to a viewing apparatus" and "transmitting an image request from the viewing apparatus to the image pickup apparatus; receiving an image from the imaging pickup apparatus at the viewing apparatus."

11. The Examiner respectfully disagrees. Park teaches connecting the image pickup apparatus (100) to a viewing apparatus (500, paragraph 0068), and receiving an image from the imaging pickup apparatus (100) at the viewing apparatus (500, paragraph 0068). Read teaches requesting that the authentication server (108) authenticate a user and authenticate that a user can access the image pickup device (See paragraphs 0035 and 0036. Authentication via user-ID and password is performed.), and transmitting an image request from the viewing apparatus (108, 110) to the image pickup apparatus (see 302, figure 3).

12. Applicant argues that the combination of Park, Read and Oishi is based upon impermissible hindsight, and that there is no basis for such a combination

13. The Examiner respectfully disagrees. Both Read and Oishi teach additional security features not taught by Park, yet known at the time of the invention. It would have been obvious to a person having ordinary skill in the art at the time of the invention to include such features for the benefit of increasing security and thus making it more difficult for unauthorized individuals to access restricted image data.

14. In response to applicant's argument that the Examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971).

15. Therefore, all rejections based on art, made previously by the Examiner, are hereby maintained.

Claim Rejections - 35 USC § 102

16. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

17. Claims 9 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Hamilton(US 2002/0118837).

18. The Response to Arguments, as illustrated above, is hereby incorporated into the rejection of the following claims by reference.

Consider claim 9, Hamilton teaches:

An image pickup apparatus unit(figures 1 and 2) comprising:

an image pickup apparatus(12) having a unique identifying number(serial number, 22) and having an encrypting function for encrypting a picked-up image for transmission to a network(paragraphs 0055-0056); and

a removable recording medium for recording a decryption key(20) for decrypting the image encrypted by said image pickup apparatus and the identifying number of said image pickup apparatus in association with each other(The key(20) and the serial number(22) may be communicated to an authorization center by traditional hard copy methods(i.e. via a removable recording medium), see end of paragraph 0079. The key(20) allows the decryption of images taken by the camera, paragraph 0071.) wherein said image pickup apparatus(12) receives an encryption key(20) for encrypting said image from a key generating apparatus(See paragraphs 0058, 0068, and 0078. Keys can be generated by the manufacturer or authorization center, by such means as a pseudo-random number generator.).

wherein said removable recording medium(i.e. hard copy) receives the decryption key for decrypting said image from a key generating apparatus(See paragraph 0068. The key(20) is generated for the authorization center(14). The

key(20) may be selected from a pseudo-random number generator(i.e. a key generating apparatus).).

Consider claim 12, and as applied to claim 9 above, Hamilton further teaches that said image pickup apparatus is at least one of a USB camera(paragraph 0049).

Claim Rejections - 35 USC § 103

19. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

20. Claims 1-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Read(US 2004/0066456) in view of Hamilton(US 2002/0118837).

21. The Response to Arguments, as illustrated above, is hereby incorporated into the rejection of the following claims by reference.

Consider claim 1, Read teaches:

An image transmission system(figure 1) for transmitting an image via a network(internet, 102), said image transmission system(figure 1) comprising:

one or a plurality of image pickup apparatus(104) each having a unique identifier(Cameras have unique identifiers so that a user can be permitted to or restricted from viewing certain cameras, paragraph 0035.);

a key generating apparatus(106) for generating, for each said image, an encryption key for encrypting said image and a decryption key for decrypting said encrypted image(See paragraphs 0026-0029, figures 2 and 3, paragraph 0033. A symmetric encryption key is generated for each image. The image is encrypted using this key. This key is also transmitted over the internet(102) to server(108) to decrypt the transmitted image.);

a viewing apparatus(108, 110) connected to the decryption key and having a decrypting function for decrypting said encrypted image using said decryption key(see figure 3, paragraph 0033), for communicating with said image pickup device (see 302, figure 3, paragraphs 0035 and 0036), and for viewing the image transmitted via said network from said image pickup apparatus to said viewing apparatus(see paragraphs 0037 and 0041); and

an authenticating server(108) for authenticating said image pickup apparatus accessible from said viewing apparatus(The authenticating server(108) is part of the viewing apparatus(108, 110). It authenticates which cameras a user is authorized to view via a user-ID/password, paragraphs 0035-0037.).

However, Read does not explicitly teach that the image pickup apparatuses have an encryption function for encrypting a picked-up image for transmission on said network. Read also does not explicitly teach that a key is generated for each image pickup apparatus, of a removable recording medium for recording said decryption key and the identifying number of said image pickup apparatus in association with each other, or that the viewing apparatus is connected with a recording medium.

Hamilton is similar to Read in that Hamilton teaches(see figures 1 and 2) transmitting an encrypted image(28) obtained from a camera(20) via a network(see paragraphs 0055-0056). Hamilton also similarly teaches of decrypting the image at a server using a decryption key(paragraph 0057). Hamilton also teaches that each camera has an identifier, although, Hamilton explicitly teaches that said identifier is a unique identifying number(serial number, 22, figure 1).

However, in addition to the teachings of Read, Hamilton teaches that the image pickup apparatus(12) has an encryption function for encrypting a picked-up image for transmission on said network(paragraphs 0055-0056). Hamilton further teaches that a key is generated for each image pickup apparatus(paragraphs 0058, 0068 and 0078). Hamilton additionally teaches a removable recording medium for recording said decryption key and the identifying number of said image pickup apparatus in association with each other(The key(20) and the serial number(22) may be communicated from the retailer or manufacturer(i.e. the key generating apparatus) to an authorization center by traditional hard copy methods(i.e. via a removable recording medium), paragraph 0079.), and that the server("authorization center") is connected with a recording medium(The authorization center can receive a "hard copy" of the key, paragraph 0079. This key is used for image decryption, paragraph 0057. Because the key is in hard copy form, it would have to be connected with the server.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to perform encryption in the individual cameras using encryption keys unique to each camera as taught by Hamilton instead of performing

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encryption in a computer and using new encryption keys for each image as taught by Read for the benefit of increasing security by not having un-encrypted images transmitted between the cameras and computer, and providing for an easier, quicker encryption by not having to generate a new encryption key for every single image. It would have been obvious to a person having ordinary skill in the art at the time of the invention to store and deliver the decryption key taught by Read on a removable recording medium as taught by Hamilton, and connect the removable recording medium to a portion of a viewing apparatus as taught by Hamilton for the benefit that the decryption key cannot be intercepted and illegally used over the internet.

Consider claim 2, Read teaches:

An image transmission system (figure 1) for transmitting an image via a network (internet, 102), said image transmission system (figure 1) comprising:

one or a plurality of image pickup apparatus (104) each having a unique identifier (Cameras have unique identifiers so that a user can be permitted to or restricted from viewing certain cameras, paragraph 0035.);

a key generating apparatus (106) for encrypting an image picked up by said image pickup apparatus (104) and transmitting said image to a network (102), and generating a decryption key (See paragraphs 0026-0029, figures 2 and 3, paragraph 0033. A symmetric encryption key is generated for each image. The image is encrypted using this key. This key is also transmitted over the internet (102) to server (108) to decrypt the transmitted image.);

a viewing apparatus(108, 110) connected to the decryption key, having a decrypting function for decrypting said encrypted image using said decryption key(see figure 3, paragraph 0033), for communicating with said image pickup device (see 302, figure 3, paragraphs 0035 and 0036), and for viewing the image transmitted via said network from said image pickup apparatus to said viewing apparatus(see paragraphs 0037 and 0041); and

an authenticating server(108) for authenticating said image pickup apparatus accessible from said viewing apparatus(The authenticating server(108) is part of the viewing apparatus(108, 110). It authenticates which cameras a user is authorized to view via a user-ID/password, paragraphs 0035-0037.).

However, Read does not explicitly teach that of a removable recording medium for recording said decryption key and the identifying number of said image pickup apparatus in association with each other, or that the viewing apparatus is connected with a recording medium.

Hamilton is similar to Read in that Hamilton teaches(see figures 1 and 2) transmitting an encrypted image(28) obtained from a camera(20) via a network(see paragraphs 0055-0056). Hamilton also similarly teaches of decrypting the image at a server using a decryption key(paragraph 0057). Hamilton also teaches that each camera has an identifier, although, Hamilton explicitly teaches that said identifier is a unique identifying number(serial number, 22, figure 1).

However, in addition to the teachings of Read, Hamilton teaches a removable recording medium for recording said decryption key and the identifying number of said

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image pickup apparatus in association with each other(The key(20) and the serial number(22) may be communicated from the retailer or manufacturer(i.e. the key generating apparatus) to an authorization center by traditional hard copy methods(i.e. via a removable recording medium), paragraph 0079.), and that the server(“authorization center”) is connected with a recording medium(The authorization center can receive a “hard copy” of the key, paragraph 0079. This key is used for image decryption, paragraph 0057. Because the key is in hard copy form, it would have to be connected with the server.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to store and deliver the decryption key taught by Read on a removable recording medium as taught by Hamilton, and connect the removable recording medium to a portion of a viewing apparatus as taught by Hamilton for the benefit that the decryption key cannot be intercepted and illegally used over the internet.

Consider claim 3, Read teaches:

An image transmission system(figure 1) for transmitting an image via a network(internet, 102), said image transmission system(figure 1) comprising:

one or a plurality of image pickup apparatus(104) each having a unique identifier(Cameras have unique identifiers so that a user can be permitted to or restricted from viewing certain cameras, paragraph 0035.);

a transmitting apparatus(106) for encrypting an image picked up by said image pickup apparatus(104) and transmitting said image to a network(102)(See paragraphs

0026-0029, figures 2 and 3, paragraph 0033. A symmetric encryption key is generated for each image. The image is encrypted using this key. This key is also transmitted over the internet(102) to server(108) to decrypt the transmitted image.);

a key generating apparatus(106) for generating, for each said image, an encryption key for encrypting said image and a decryption key for decrypting said encrypted image(See paragraphs 0026-0029, figures 2 and 3, paragraph 0033. A symmetric encryption key is generated for each image. The image is encrypted using this key. This key is also transmitted over the internet(102) to server(108) to decrypt the transmitted image.);

a viewing apparatus(108, 110) connected to the decryption key, having a decrypting function for decrypting said encrypted image using said decryption key(see figure 3, paragraph 0033), for communicating with said image pickup device (see 302, figure 3, paragraphs 0035 and 0036), and for viewing the image transmitted via said network from said image pickup apparatus to said viewing apparatus(see paragraphs 0037 and 0041); and

an authenticating server(108) for authenticating said image pickup apparatus accessible from said viewing apparatus(The authenticating server(108) is part of the viewing apparatus(108, 110). It authenticates which cameras a user is authorized to view via a user-ID/password, paragraphs 0035-0037.).

However, Read does not explicitly teach that a key is generated for each image pickup apparatus, of a removable recording medium for recording said decryption key

and the identifying number of said image pickup apparatus in association with each other, or that the viewing apparatus is connected with a recording medium.

Hamilton is similar to Read in that Hamilton teaches(see figures 1 and 2) transmitting an encrypted image(28) obtained from a camera(20) via a network(see paragraphs 0055-0056). Hamilton also similarly teaches of decrypting the image at a server using a decryption key(paragraph 0057). Hamilton also teaches that each camera has an identifier, although, Hamilton explicitly teaches that said identifier is a unique identifying number(serial number, 22, figure 1).

However, in addition to the teachings of Read, Hamilton teaches that a key is generated for each image pickup apparatus(paragraphs 0058, 0068 and 0078). Hamilton additionally teaches a removable recording medium for recording said decryption key and the identifying number of said image pickup apparatus in association with each other(The key(20) and the serial number(22) may be communicated from the retailer or manufacturer(i.e. the key generating apparatus) to an authorization center by traditional hard copy methods(i.e. via a removable recording medium), paragraph 0079.), and that the server("authorization center") is connected with a recording medium(The authorization center can receive a "hard copy" of the key, paragraph 0079. This key is used for image decryption, paragraph 0057. Because the key is in hard copy form, it would have to be connected with the server.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to perform encryption using encryption keys unique to each camera as taught by Hamilton instead of performing encryption using new encryption

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keys for each image as taught by Read for the benefit of providing for an easier, quicker encryption by not having to generate a new encryption key for every single image. It would have been obvious to a person having ordinary skill in the art at the time of the invention to store and deliver the decryption key taught by Read on a removable recording medium as taught by Hamilton, and connect the removable recording medium to a portion of a viewing apparatus as taught by Hamilton for the benefit that the decryption key cannot be intercepted and illegally used over the internet.

Consider claim 4, Read teaches:

An image transmission system (figure 1) for transmitting an image via a network (internet, 102), said image transmission system (figure 1) comprising:

one or a plurality of image pickup apparatus (104) each having a unique identifier (Cameras have unique identifiers so that a user can be permitted to or restricted from viewing certain cameras, paragraph 0035.);

a key generating apparatus (106) for generating, for each said image, an encryption key for said image to encrypt the image and a decryption key (See paragraphs 0026-0029, figures 2 and 3, paragraph 0033. A symmetric encryption key is generated for each image. The image is encrypted using this key. This key is also transmitted over the internet (102) to server (108) to decrypt the transmitted image.);

a viewing apparatus (108, 110) connected to the decryption key, having a decrypting function for decrypting said encrypted image using said decryption key (see figure 3, paragraph 0033), for communicating with said image pickup device (see 302,

figure 3, paragraphs 0035 and 0036), and for viewing the image transmitted via said network from said image pickup apparatus to said viewing apparatus(see paragraphs 0037 and 0041).

However, Read does not explicitly teach that the image pickup apparatuses have an encryption function for encrypting a picked-up image for transmission on said network. Read also does not explicitly teach that a key is generated for each image pickup apparatus, of a removable recording medium for recording said decryption key and the identifying number of said image pickup apparatus in association with each other, or that the viewing apparatus is connected with a recording medium.

Hamilton is similar to Read in that Hamilton teaches(see figures 1 and 2) transmitting an encrypted image(28) obtained from a camera(20) via a network(see paragraphs 0055-0056). Hamilton also similarly teaches of decrypting the image at a server using a decryption key(paragraph 0057). Hamilton also teaches that each camera has an identifier, although, Hamilton explicitly teaches that said identifier is a unique identifying number(serial number, 22, figure 1).

However, in addition to the teachings of Read, Hamilton teaches that the image pickup apparatus(12) has an encryption function for encrypting a picked-up image for transmission on said network(paragraphs 0055-0056). Hamilton further teaches that a key is generated for each image pickup apparatus(paragraphs 0058, 0068 and 0078). Hamilton additionally teaches a removable recording medium for recording said decryption key and the identifying number of said image pickup apparatus in association with each other(The key(20) and the serial number(22) may be communicated from the

retailer or manufacturer(i.e. the key generating apparatus) to an authorization center by traditional hard copy methods(i.e. via a removable recording medium), paragraph 0079.), and that the server(“authorization center”) is connected with a recording medium(The authorization center can receive a “hard copy” of the key, paragraph 0079. This key is used for image decryption, paragraph 0057. Because the key is in hard copy form, it would have to be connected with the server.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to perform encryption in the individual cameras using encryption keys unique to each camera as taught by Hamilton instead of performing encryption in a computer and using new encryption keys for each image as taught by Read for the benefit of increasing security by not having un-encrypted images transmitted between the cameras and computer, and providing for an easier, quicker encryption by not having to generate a new encryption key for every single image. It would have been obvious to a person having ordinary skill in the art at the time of the invention to store and deliver the decryption key taught by Read on a removable recording medium as taught by Hamilton, and connect the removable recording medium to a portion of a viewing apparatus as taught by Hamilton for the benefit that the decryption key cannot be intercepted and illegally used over the internet.

22. Claims 14-17, 22, 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hamilton(US 2002/0118837) in view of Read(US 2004/0066456).

23. The Response to Arguments, as illustrated above, is hereby incorporated into the rejection of the following claims by reference.

Consider claim 14, Hamilton teaches:

A key generating apparatus for generating an encryption key used for encryption processing in transmitting an image(27) via a network(See paragraph 0058, figures 1 and 2. A key(22) is generated by a retailer or manufacturer and stored in a camera(12). The key is used to encrypt images, paragraph 0047. A pseudo-random number generator may be used to generate keys, paragraph 0068.), and a decryption key(paragraph 0071),

wherein said key generating apparatus generates the encryption key(20) for encrypting said image(27) and transmits the encryption key(20) to an image pickup apparatus(12) having a unique identifying number(serial number, 22) and having an encrypting function for encrypting a picked-up image for transmission over the network(paragraphs 0055-0056); and

said key generating apparatus generates the decryption key for decrypting said encrypted image and transmits the decryption key to a removable recording medium for recording said decryption key and the identifying number of said image pickup-apparatus in association with each other(The key(20) and the serial number(22) may be communicated from the retailer or manufacturer(i.e. the key generating apparatus) to an authorization center by traditional hard copy methods(i.e. via a removable recording

medium), paragraph 0079. The key(20) allows the decryption of images taken by the camera, paragraph 0071.).

Hamilton does not explicitly teach that the image is transmitted from the camera to a viewing apparatus.

Read is similar to Hamilton in that Read teaches an image transmission system(figure 1) for transmitting an image via a network(internet, 102), said image transmission system(figure 1) comprising one or a plurality of image pickup apparatus(104) each having a unique identifier(Cameras have unique identifiers so that a user can be permitted to or restricted from viewing certain cameras, paragraph 0036.).

However, in addition to the teachings of Hamilton, Read teaches that a viewer is authenticated by an authentication server and is permitted to receive encrypted images from the image pickup apparatus(An authenticating server(108) is part of a viewing apparatus(108, 110). It authenticates which cameras a user is authorized to view via a user-ID/password, paragraphs 0035-0037. The viewing apparatus comprises display elements such as laptops and cellular telephones, paragraph 0021. The viewing apparatus(108) decrypts the image data for display, paragraph 0044.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to include a secure viewing apparatus as taught by Read in the network taught by Hamilton for the benefit of improving the versatility of the system by enabling an authorized user to view remotely captured image data (Read, paragraph 0005).

Consider claim 15, and as applied to claim 14 above, Hamilton further teaches that said key generating apparatus has a linking function for linking said image pickup device(12) to said network(Hamilton teaches that the keys can alternatively be generated in an authorization center(14), paragraphs 0068 and 0078. Images(27) are sent to the authorization center(14) from the camera(12), paragraph 0056. The authorization center(14) may then communicate images(27) to a verifying entity(16). Therefore, the authorization center(i.e. key generating apparatus) links the image pickup device to the overall network.).

Consider claim 16, and as applied to claim 14 above, Hamilton teaches that keys are generated by an external source(see claim 14 rationale). Hamilton does not explicitly teach that said key generating apparatus has a compressing function for compressing the image picked up by said image pickup apparatus.

However, in addition to the teachings of Hamilton, Read teaches that the key generating apparatus(106) is in a personal computer(paragraph 0026) connected to a plurality of cameras(104, figure 1), and that the key generation apparatus(106) compresses the image data(paragraph 0026).

Consider claim 17, and as applied to claim 14 above, Hamilton further teaches a computer program stored on a computer readable medium, for making a computer function as the key generator of claim 14(See paragraphs 0068. A pseudo random number generator generates keys of desired lengths, such as 128-bits. A computer

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program stored on a computer readable medium would have to be used to enable the operation and key generation of the pseudo-random number.).

Consider claim 22, Hamilton teaches:

An image pickup apparatus(12, figures 1 and 2) used in an image transmission system(figure 1) for transmitting an image(28) via a network(paragraph 0056), said image pickup apparatus(12) comprising:

a recording unit(22) for recording a unique identifying number(serial number, paragraph 0048);

an encrypting unit for encrypting a picked-up image(paragraph 0055); and

a communicating unit(23, paragraph 0049, not shown in drawings) for transmitting said encrypted image to a viewer(verifying entity, 16, paragraphs 0056-0057).

However, Hamilton does not explicitly teach that the viewer has been authenticated by an authentication server and is permitted to receive encrypted images from the image pickup apparatus.

Read is similar to Hamilton in that Read teaches an image transmission system(figure 1) for transmitting an image via a network(internet, 102), said image transmission system(figure 1) comprising one or a plurality of image pickup apparatus(104) each having a unique identifier(Cameras have unique identifiers so that a user can be permitted to or restricted from viewing certain cameras, paragraph 0036.).

However, in addition to the teachings of Hamilton, Read teaches that the viewer has been authenticated by an authentication server and is permitted to receive encrypted images from the image pickup apparatus(An authenticating server(108) is part of a viewing apparatus(108, 110). It authenticates which cameras a user is authorized to view via a user-ID/password, paragraphs 0035-0037.).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to include an authenticating server as taught by Read to permit or prohibit viewers from receiving the encrypted images taught by Hamilton for the benefit of improving security by only allowing viewers access to authorized and appropriate images.

Consider claim 23, and as applied to claim 22 above, Hamilton further teaches that said communicating unit includes a receiving unit for receiving an encryption key for encrypting said image from a key generating apparatus(paragraphs 0058, 0068 and 0078).

Consider claim 24, and as applied to claim 22 above, Hamilton further teaches that said communicating unit includes at least one of a USB port(see paragraph 0049).

24. Claims 18-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Park(US 2004/0085446) in view of Read(US 2004/0066456) in view of Oishi(US 6,999,588).

25. The Response to Arguments, as illustrated above, is hereby incorporated into the rejection of the following claims by reference.

Consider claim 18, Park teaches:

A computer program, stored on a computer readable medium(Park discusses the use of a stored control program in paragraph 0008), for making a computer perform the steps of:

initializing a image transmission system, comprising connecting an image pickup apparatus(100, figure 1, 110, figure 2) to a key generating apparatus(The image pickup apparatus(110) is connected to an encryption unit(130), which is detailed in figure 4.

The encryption unit(130) comprises a key generating apparatus(132) which generates keys for the video data encrypting device(133). See paragraphs 0069 and 0075.);

transmitting an identifying number from the image pickup apparatus to the key generating apparatus(The key generating apparatus stores keys that are associated with received unique camera numbers. See paragraphs 0069 and 0075);

registering the identifying number(115) from the image pickup apparatus(110, 100) at the key generating apparatus(paragraphs 0069 and 0075);

generating an encryption and decryption key unique to the image pickup apparatus(See paragraphs 0069 and 0075 for generating encryption keys unique to image pickup apparatuses. See figure 8 for the decryption unit. The decryption unit contains a key data supplier(322) which stores the same data as key data supplier(132).

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See paragraphs 0086-0087 for generating decryption keys unique to image pickup apparatuses.);

connecting the image pickup apparatus(100, figure 1, 110, figure 2) to a viewing apparatus(500, See figures 1 and 2, paragraphs 0068 and 0070);

comparing the identification number(115) stored in the receiving device(300) to the identifying number(115) of the image pickup apparatus(100, See paragraphs 0086 and 0087.);

obtaining the decryption key(paragraph 0086);

connecting the image pickup apparatus (100) to a viewing apparatus (500, paragraph 0068), and receiving an image from the imaging pickup apparatus (100) at the viewing apparatus (500, paragraph 0068).

decrypting images received from the image pickup device using the decryption key(paragraphs 0086-0087);

displaying the decrypted images on the viewer(500, paragraphs 0068 and 0070).

However, Park does not explicitly teach registering an identifying number of an image pickup device at an authentication server, then requesting that the authentication server authenticate a user and authenticate that a user can access the image pickup device, or authenticating the user and image pickup apparatus in response to the requesting step. Park also does not explicitly teach transmitting an image request from the viewing apparatus to the image pickup apparatus.

Read is similar to Park in that Read teaches an image transmission system(figure 1) for transmitting an image via a network(internet, 102), said image

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transmission system (figure 1) comprising a plurality of image pickup apparatus (104), each having a unique identifier (Cameras have unique identifiers so that a user can be permitted to or restricted from viewing certain cameras, paragraph 0036.). Read also similarly teaches of viewing a transmitted image (paragraphs 0037 and 0041), and of performing encryption and decryption operations (figures 2 and 3).

However, in addition to the teachings of Park, Read teaches registering an identifying number of an image pickup device (Cameras have unique identifiers so that a user can be permitted to or restricted from viewing certain cameras, paragraph 0036.) at an authentication server (108, paragraphs 0035-0036), then requesting that the authentication server (108) authenticate a user and authenticate that a user can access the image pickup device (paragraphs 0035 and 0036), and authenticating the user and image pickup apparatus in response to the requesting step (paragraph 0037). Read also teaches transmitting an image request from the viewing apparatus (108, 110) to the image pickup apparatus (see 302, figure 3).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to include an authenticating server as taught by Read to permit or prohibit viewers from receiving the encrypted images taught by Park for the benefit of improving security by only allowing viewers access to authorized and appropriate images.

However, the combination of Park and Read does not explicitly teach that the decryption keys associated with the image pickup apparatus identifying numbers are stored in a memory card.

Oishi is similar to Park and Read in that Oishi teaches an image pickup apparatus(100, figure 1) containing an image pickup unit(1) and an encryption unit(5), said image pickup apparatus(100) transmitting encrypted images to an image processing apparatus(200).

However, in addition to the teachings of Park and Read, Oishi teaches that the image pickup apparatus(100) is connected via an interface to a memory card(20, column 6, lines 9 and 10), that a decryption key associated with a specific image pickup apparatus is stored in the memory card(column 7, line 40 through column 8, line 3), and that the decryption key is obtained by the image processing device(200) and used for decryption of the transmitted image data(see column 6, lines 10-17, column 7, line 67 through column 8, line 3, column 10, lines 11-18).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to store decryption keys associated with specific image pickup apparatuses as taught by the combination of Park and Read on a memory card as taught by Oishi for the benefit of protecting the decryption key from being obtained by illegal users from the image input apparatus(Oishi, column 8, lines 59-64).

Consider claim 19, and as applied to claim 18 above, Park does not explicitly teach accessing the authentication server from a viewing apparatus using a username and password.

However, Read teaches accessing the authentication server from a viewing apparatus using a username and password(paragraph 0035).

Consider claim 20, Park teaches:

An image transmission system for transmitting an image via a network(figures 1 and 2), comprising:

an image pickup apparatus(100, figure 1, 110, figure 2) connected to a key generating apparatus(The image pickup apparatus(110) is connected to an encryption unit(130), which is detailed in figure 4. The encryption unit(130) comprises a key generating apparatus(132) which generates keys for the video data encrypting device(133). See paragraphs 0069 and 0075.), comprising:

a recording unit(132) for storing an identifying number and an encryption key from the key generating apparatus(paragraphs 0069 and 0075);

the key generating apparatus, comprising:

a recording unit(132) for storing the identifying number(115) from the image pickup apparatus(110, paragraph 0075);

an encryption key generation unit for generating an encryption and decryption key unique to the image pickup apparatus(See paragraphs 0069 and 0075 for generating encryption keys unique to image pickup apparatuses. See figure 8 for the decryption unit. The decryption unit contains a key data supplier(322) which stores the same data as key data supplier(132). See paragraphs 0086-0087 for generating decryption keys unique to image pickup apparatuses.);

an image viewer(500, See figures 1 and 2, paragraphs 0068 and 0070) comprising:

an interface for connecting the image pickup apparatus to the viewing apparatus(See paragraphs 0068 and 0070);

an interface for obtaining the decryption key(paragraph 0086);

a decrypting unit(320, figure 2, figure 8) for decrypting the images received from the image pickup device using the decryption key(paragraphs 0086-0087);

a display unit(500) for displaying the decrypted images on the viewer(paragraphs 0068 and 0070).

However, Park does not explicitly teach a network interface for registering the identifying number from the image pickup apparatus at an authentication server, an authentication server for authenticating the user and image pickup apparatus in response to an authentication request, or an interface for requesting that the authentication server authenticate a user and authenticate an image pickup device accessible by the user.

Read is similar to Park in that Read teaches an image transmission system(figure 1) for transmitting an image via a network(internet, 102), said image transmission system(figure 1) comprising a plurality of image pickup apparatus(104), each having a unique identifier(Cameras have unique identifiers so that a user can be permitted to or restricted from viewing certain cameras, paragraph 0036.). Read also similarly teaches of viewing a transmitted image(paragraphs 0037 and 0041), and of performing encryption and decryption operations(figures 2 and 3).

However, in addition to the teachings of Park, Read teaches registering an identifying number of an image pickup device(Cameras have unique identifiers so that a

user can be permitted to or restricted from viewing certain cameras, paragraph 0036.) at an authentication server(108, paragraphs 0035-0036), then requesting that the authentication server(108) authenticate a user and authenticate that a user can access the image pickup device(paragraphs 0035 and 0036), and authenticating the user and image pickup apparatus in response to the requesting step(paragraph 0037).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to include an authenticating server as taught by Read to permit or prohibit viewers from receiving the encrypted images taught by Park for the benefit of improving security by only allowing viewers access to authorized and appropriate images.

However, the combination of Park and Read does not explicitly teach that the decryption keys associated with the image pickup apparatus identifying numbers are stored in a removable storage medium.

Oishi is similar to Park and Read in that Oishi teaches an image pickup apparatus(100, figure 1) containing an image pickup unit(1) and an encryption unit(5), said image pickup apparatus(100) transmitting encrypted images to an image processing apparatus(200).

However, in addition to the teachings of Park and Read, Oishi teaches that the image pickup apparatus(100) is connected via an interface to a memory card(i.e. a removable storage medium, 20, column 6, lines 9 and 10), that a decryption key associated with a specific image pickup apparatus is stored in the memory card(column 7, line 40 through column 8, line 3), and that the decryption key is obtained by the

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image processing device(200) and used for decryption of the transmitted image data(see column 6, lines 10-17, column 7, line 67 through column 8, line 3, column 10, lines 11-18).

Therefore, it would have been obvious to a person having ordinary skill in the art at the time of the invention to store decryption keys associated with specific image pickup apparatuses as taught by the combination of Park and Read on a removable storage medium as taught by Oishi for the benefit of protecting the decryption key from being obtained by illegal users from the image input apparatus(Oishi, column 8, lines 59-64).

Consider claim 21, and as applied to claim 20 above, Park does not explicitly teach the authentication server authenticates the user of the viewing apparatus using a username and password associated with the image pickup apparatus.

However, Read teaches the authentication server authenticates the user of the viewing apparatus using a username and password associated with the image pickup apparatus(paragraph 0035).

Conclusion

26. The rejection of claim 18 under 35 U.S.C. 101 is hereby removed in view of Applicant's response.

27. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP

§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to ALBERT H. CUTLER whose telephone number is (571)270-1460. The examiner can normally be reached on Mon-Thu (9:00-5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ngoc-Yen Vu can be reached on (571) 272-7320. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AC
06/25/2008

***/Ngoc-Yen T. VU/
Supervisory Patent Examiner, Art Unit 2622***